CREATIVE BIOMART®
Assay Kit

PDE10A1 TR-FRET Assay Kit

Product Information

Cat.No. Kit-1822

Product Overview

Phosphodiesterases (PDEs) play an important role in dynamic regulation of cAMP and cGMP signaling. PDE10A is a dual substrate PDE highly expressed in striatal medium spiny neurons. PDE10A inhibitors can improve the cognitive symptoms of schizophrenia, and exhibit potential therapeutic value for Huntington"s disease. PDE10A1 is located in cytosol, whereas PDE10A2 is a membrane-associated protein. The assay is based on the generation of FAM-labeled nucleotide monophosphates by the phosphodiesterase. These phosphate groups bind to terbium-labeled nanoparticles, resulting in energy transfer from the terbium to the FAM, which emits a fluorescent signal at 520 nm. The change in fluorescent intensity can be easily measured using a fluorescence plate reader.

Size

96 reactions

Description

The PDE10A1 TR-FRET Assay Kit is designed for identification of inhibitors of PDE10A1 using TR-FRET (Time Resolved Fluorescence Resonance Energy Transfer) technology. Using this kit, only two simple steps on a microtiter plate are required for the PDE10A1 activity assay. First, the fluorescent-labeled cAMP is incubated with a sample containing PDE10A1 for 1 hour. Second, a binding agent and a terbium donor are added to the reaction mix and incubated for 1 hour. Then, fluorescence intensity can be measured using a fluorescence reader.

Applications

Great for studying enzyme kinetics and screening small molecular inhibitors for drug discovery and HTS applications.

Storage

At least 6 months from date of receipt, when stored as directed. Kit components require different storage conditions. Be sure to store each component at the proper temperature upon arrival.

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Kit Components

PDE10A1 recombinant enzyme: 1 μg; -80°C FAM-Cyclic-3′, 5′-AMP (20 μM): 50 μl; -80°C PDE assay buffer: 25 ml; -20°C Tb donor: 30 μl; -80°C Binding Agent: 200 μl; +4°C Binding Buffer A: 20 ml; +4°C Binding Buffer B: 20 ml; +4°C Black, low binding NUNC microtiter plate: 1; Room temp.

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